

1-1. BACKGROUND. Ground vehicle accidents cost the Army about \$100 million each year and significantly reduces mission capabilities. Leaders must develop techniques that will save resources. Because the Army must be prepared to operate worldwide, the training mission has become increasingly demanding and so have the risks inherent in that mission. This increase in risk requires leaders to balance mission needs with hazards involved and make wise risk decisions.

1-2. DEFINITION. Risk is the possibility of a loss combined with the probability of an occurrence. The loss can be death, injury, property damage, or mission failure. Risk management identifies risks associated with a particular operation and weighs these risks against the overall training value to be gained. The four rules of risk management are as follows:

- o Accept no unnecessary risk.
- o Accept risks when benefits outweigh costs.
- o Make risk decisions at the right command level.
- o Manage risk in the concept and planning stages whenever possible.

1-3. RISK MANAGEMENT PROCESS. The risk management process uses the following approach:

- a. Identify Hazards. Look for hazards in each phase of the training or operation.
- b. Assess the Risk. Ask these questions:
 - o What type of injury or equipment damage can be expected?
 - o What is the probability of an accident happening?

NOTE: A low probability of an accident and an expected minor injury equals low risk. A high probability of an accident and an expected fatality equals extremely high risk.

c. Develop Risk Control Alternatives and Make Risk Decisions. If you cannot eliminate the risk, then you must control it without sacrificing essential mission requirements. You can control some risks by modifying tasks, changing location, increasing supervision, wearing protective clothing, changing time of operation, and so forth. Decisions take several forms:

- o Selecting from available controls.
- o Modifying the mission because the risk is too great.
- o Accepting risk because mission benefits outweigh potential loss.

d. Implement Risk Control Measures. You must integrate procedures to control risks into plans, orders, SOPs, and training. You must also ensure risk reduction measures are used during actual operations.

e. Supervise the Operations. Make sure leaders know what controls are in place and what standards are expected. Then hold those in charge, accountable for implementation. This is the point when accident prevention actually happens.

1-4. **RISK ASSESSMENT ELEMENTS.** There are no hard and fast rules for assessing risk. Different training tasks involve different elements that can affect training safety. However, the following seven elements are central to safely completing most driver training tasks:

- o Soldier qualification.
- o Supervision.
- o Vehicle type.
- o Equipment.
- o Weather.
- o Time of day.
- o Terrain.

Using matrices that assign a risk level to each of the elements is one way to quickly appreciate the overall risks. The following matrices are examples of risk assessments for the seven elements common to driver training missions.

NOTE: These are arbitrarily weighted factors. Modify them based on your particular mission and unit.

a. Measure soldier qualification risk by comparing the level of task difficulty to the soldier's military driving experience.

SOLDIER QUALIFICATION RISK VALUE			
TASK	DRIVING EXPERIENCE		
	LICENSED OVER 1 YEAR	LICENSED UNDER 1 YEAR	UNLICENSED
COMPLEX	Medium	High	High
ROUTINE	Low	Medium	High
SIMPLE	Low	Low	Medium

EXAMPLE: Unlicensed drivers learning downhill braking techniques in a HEMTT would be a high risk situation requiring substantial controls.

b. Measure vehicle type risk by comparing the vehicle configuration to the locations of the training tasks.

VEHICLE TYPE RISK VALUE			
LOCATION OF TRAINING	VEHICLE CONFIGURATION		
	SMALL TRUCKS	STRAIGHT TRUCKS	COMBINATION UNITS
ROAD TRAINING AREA MOTOR POOL	Medium	High	High
	Low	Medium	High
	Low	Low	Low

EXAMPLE: Driving a HEMTT over the road would have a high risk value.

c. Measure weather risk by comparing road conditions with visibility.

WEATHER RISK VALUE			
ROAD CONDITIONS	VISIBILITY		
	CLEAR	REDUCED	RESTRICTED
UNFAVORABLE	Medium	High	High
ADEQUATE	Low	Medium	High
FAVORABLE	Low	Medium	High

EXAMPLE: Driving on icy roads in fog would have a high risk value.

d. Measure terrain risk by comparing the physical features of the land with the existing road network.

TERRAIN RISK VALUE			
TYPE OF TERRAIN	ROAD NETWORK		
	IMPROVED ROADS	SECONDARY ROADS	UNIMPROVED
MOUNTAIN	Medium	High	High
DESERT/JUNGLE	Low	Medium	High
FLAT/ROLLING	Low	Low	Medium

EXAMPLE: Driver training conducted at Fort Bragg, over trails, would have a medium risk value.

- e. Measure supervision risk by comparing the level of supervision to the task location.

SUPERVISION RISK VALUE			
LEVEL OF SUPERVISION	TASK LOCATION		
	MOTOR POOL	TRAINING AREA/ UNCONGESTED ROAD	OFF ROAD/ CONGESTED ROAD
NOT OBSERVING	High	High	High
OBSERVING	Low	Medium	High
IN VEHICLE	Low	Low	Medium

EXAMPLE: A student driving alone, but observed, in a training area would have a medium risk value.

- f. Measure equipment risk by comparing the equipment's age to the time (months) since the last semiannual service. Equipment age is defined as the following: old is 15 or more years old; average is 5 to 15 years old; and new is 5 or less years old.

EQUIPMENT RISK VALUE			
EQUIPMENT AGE	LAST SEMIANNUAL SERVICE		
	0 to 2 months	+2 to 4 months	+4 months
OLD	Medium	Medium	High
AVERAGE	Low	Medium	High
NEW	Low	Low	Medium

EXAMPLE: An eight-year-old HEMTT serviced 3 months ago would have a medium risk value.

- g. Measure time of day risk by comparing the level of light to familiarity with the route.

TIME OF DAY RISK VALUE			
ROUTE FAMILIARITY	LIGHT LEVEL		
	DAY	DAWN/DUSK	NIGHT
NEVER DRIVEN ROUTE	Medium	High	High
DRIVEN ROUTE 1 TO 3 TIMES	Low	Medium	High
FAMILIAR ROUTE	Low	Low	Medium

EXAMPLE: A driving task over a familiar route that starts during the day but ends at dusk would have a medium risk value.

h. After assessing all the risks, the overall risk value equals the highest risk identified for any one element. Now is the time to focus on high risk elements and develop controls to reduce risks to an acceptable level. Control examples may include conducting training in a different location or at a different time of day, putting an instructor in the vehicle with the student, waiting for better weather, using a different vehicle, and so on.

1-5. **DECISION AID.** The level of the decision maker should correspond to the level of the risk. The greater the risk, the more senior the final decision maker should be. This matrix is a proposed decision aid to help determine the leadership decision-making level.

DECISION AID	
RISK	DECISION LEVEL
LOW	SENIOR INSTRUCTOR
MEDIUM	COMPANY COMMANDER
HIGH	BATTALION COMMANDER

a. Medium risk training warrants complete unit command involvement. For example, a medium risk value in the weather element category indicates the soldiers are more susceptible to cold injuries and require closer supervision or a rescheduling of training. If you cannot reduce the risk level, the company commander should decide to train or defer the mission.

b. Operations with a high risk value warrant battalion involvement. If you cannot reduce the risk level, the battalion commander should decide to train or defer the mission.

1-6. **RISK CONTROL ALTERNATIVES.** The following options can help control risk:

- a. Eliminate the hazard totally, if possible, or substitute a less hazardous alternative.
- b. Reduce the magnitude of the hazard by changing tasks, locations, times, and so forth.
- c. Modify operational procedures to minimize risk exposure consistent with mission needs.
- d. Train and motivate personnel to perform to standards to avoid hazards.

1-7. **SUPERVISION.** Leaders must monitor the training to ensure risk control measures are followed. Never underestimate subordinates' ability to sidetrack a decision they do not understand or support. You must also monitor the impact of risk reduction procedures when they are implemented to see that they really work. This is especially true of new, untested procedures.

1-8. **PAYOFFS.** Risk management lets you use realistic training scenarios minimizing personnel and equipment losses while training. Risk management is consistent with METT-T decision processes and can be used in battle to increase mission effectiveness.

SAMPLE RISK ASSESSMENT WORK SHEET FOR DRIVER TRAINING

TRAINING TASK: _____

RISK LEVEL: _____

_____ 1. SOLDIER QUALIFICATION

TASK	DRIVING EXPERIENCE		
	LICENSED OVER 1 YEAR	LICENSED UNDER 1 YEAR	UNLICENSED
COMPLEX	Medium	High	High
ROUTINE	Low	Medium	High
SIMPLE	Low	Low	Medium

_____ 2. VEHICLE TYPE

LOCATION OF TRAINING	VEHICLE CONFIGURATION		
	SMALL TRUCKS	STRAIGHT TRUCKS	COMBINATION UNITS
ROAD	Medium	High	High
TRAINING AREA	Low	Medium	High
MOTOR POOL	Low	Low	Low

_____ 3. WEATHER

ROAD CONDITIONS	VISIBILITY		
	CLEAR	REDUCED	RESTRICTED
UNFAVORABLE	Medium	High	High
ADEQUATE	Low	Medium	High
FAVORABLE	Low	Medium	High

_____ 4. TERRAIN

TYPE OF TERRAIN	ROAD NETWORK		
	IMPROVED ROADS	SECONDARY ROADS	UNIMPROVED
MOUNTAIN	Medium	High	High
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_____ 5. SUPERVISION

LEVEL OF SUPERVISION	TASK LOCATION		
	MOTOR POOL	TRAINING AREA/ UNCONGESTED ROAD	OFF ROAD/ CONGESTED ROAD
NOT OBSERVING	High	High	High
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EQUIPMENT AGE	LAST SEMIANNUAL SERVICE		
	0 to 2 months	+2 to 4 months	+4 months
OLD	Medium	Medium	High
AVERAGE	Low	Medium	High
NEW	Low	Low	Medium

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_____ 7. TIME OF DAY

ROUTE FAMILIARITY	LIGHT LEVEL		
	DAY	DAWN/DUSK	NIGHT
NEVER DRIVEN ROUTE	Medium	High	High
DRIVEN ROUTE 1 TO 3 TIMES	Low	Medium	High
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_____	OVERALL RISK LEVEL										
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APPROVED BY: _____ DATE: _____